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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/808,983	03/24/2004	Luc Lachapelle	2738-5A	7062

7590 09/21/2005

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EXAMINER

CINTINS, IVARS C

ART UNIT	PAPER NUMBER
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1724

DATE MAILED: 09/21/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/808,983

Applicant(s)

LACHAPELLE ET AL.

Examiner

Ivars C. Cintins

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 28 June 2005.
2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-9 is/are pending in the application.
4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5) ☐ Claim(s) _____ is/are allowed.
6) ☒ Claim(s) 1-9 is/are rejected.
7) ☐ Claim(s) _____ is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

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The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claim 5 is rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor, at the time the application was filed, had possession of the claimed invention. The limitation that the liquid portion is mixed with the quarry fines "without any pre-treatment" does not appear to be supported by the disclosure originally filed, and hence constitutes **new matter**.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kruidhof (U.S. Patent No. 5,993,503). Kruidhof discloses a method for reducing the phosphor content of liquid pig manure (see col. 1, lines 18-22) by separating the liquid manure into a solids portion and a liquid portion (col. 3, lines 5-6), mixing the liquid portion with a mineral substance such as magnesium oxide to reduce its phosphor content (col. 3, lines 48-51), and separating the thus treated liquid from the mineral substance (col. 3, lines 60-62). Accordingly, this reference discloses the claimed invention with the exception of the source of the mineral substance, the time period during which the mineral substance and liquid are mixed (claim 2), the recited measuring step (claim 3), and the ratio of nitrogen to phosphate in the manure (claim 4). However, it would have been obvious to one of ordinary skill in the art at the time the invention

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was made to obtain the treatment material of the reference (e.g. magnesium oxide) from a quarry, since this material is typically found in such a location. Also, it would have been obvious to one of ordinary skill in the art at the time the invention was made to mix the mineral substance with the liquid for at least 30 minutes, in order to ensure adequate contact between these materials. Furthermore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to measure the nitrogen and phosphorus content of the manure until it reaches the recited ratio, in order to ensure that the liquid portion of this mixture contains the desired amount of phosphate (see col. 2, lines 12-13).

Claims 6-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kruidhof as applied above, and further in view of van der Wijngaart (U.S. Patent No. 6,773,594). Kruidhof discloses the claimed invention with the exception of the type of separator employed. van der Wijngaart discloses separating a solid from a liquid with a screw separator (col. 3, line 23), a filter (col. 3, line 23), a centrifuge (col. 3, lines 22 and 35), or a sloping surface (col. 3, lines 11-12). It would have been obvious to one of ordinary skill in the art at the time the invention was made to substitute any of the separators disclosed by van der Wijngaart for the liquid-solid separator of Kruidhof, since each of these secondary reference separators is capable of separating solids from a liquid in substantially the same manner as the liquid-solid separator of the primary reference, to produce substantially the same results.

Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kruidhof as applied above, and further in view of Woodbridge (U.S. Patent No. 3,630,365). Kruidhof discloses the claimed invention with the exception of the recited mobile system. Woodbridge teaches making a liquid waste treatment system transportable; and it would have been obvious to

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one of ordinary skill in the art at the time the invention was made to construct the treatment system of the primary reference in a similar manner, in order to allow this primary reference system to be transported to a location where it is needed.

Applicant's arguments filed March 14, 2005 have been noted and carefully considered but are not deemed to be persuasive of patentability. Applicant argues that Kruidhof fails to teach utilizing quarry fines. It is pointed out, however, that the magnesium oxide utilized in this reference process can typically be obtained from a quarry; and therefore, one of ordinary skill in the liquid purification art would have been motivated to employ quarry fines containing magnesium oxide in the reference process, since quarry fines would normally be discarded as a waste product.

Applicant also argues that Kruidhof teaches that the liquid portion "must be conditioned prior to further treatment." Again, this argument has been noted and carefully considered, but is not deemed to be persuasive of patentability, since it appears that in this reference process the liquid portion that is separated from the solids portion (i.e. in step 20) is subjected to the phosphate removal treatment by the mineral substance (i.e. in step 30) without any intervening pre-treatment (see Fig. 1; and col. 4, lines 11-17).

Wehling et al. (U.S. Patent No. 4,919,680) teaches that it is known to obtain magnesium oxide from a quarry (see col. 3, lines 41-44).

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO**


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MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to I. Cintins whose telephone number is 571-272-1155. The examiner can normally be reached on Monday through Friday from 8:30 AM to 5:00 PM. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mr. Duane Smith, can be reached at 571-272-1166.

The centralized facsimile number for the USPTO is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Ivars C. Cintins
Primary Examiner
Art Unit 1724

I. Cintins
September 18, 2005